

The invention having been described, I claim,

1 1. A tooling set to enhance the assembly of automatic transmissions for automobiles, the tool set
2 to secure a combination comprising the rear planetary gear assembly, an oil bushing, thrust washer, and
3 rear clutch assembly to be then installed in a housing, the tool set comprising:

4 a) an elongated guide spear with one end threaded to engage threads on the oil bushing, and pass
5 through bolt holes in the housing;

6 b) a main spear to engage threads on the planetary gear assembly and to extend along the
7 common center line of the planetary gear assembly;

8 c) a spacer bushing to extend from the main spear to engage the oil bushing;

9 whereby the rear clutch assembly can be installed on the oil bushing resulting in an
10 assembly which can be assembled outside the housing with seals and thrust washer visible, then
11 installed in the housing, the tooling set then removable for further processing of the overall
12 transmission assembly.

2. The tool set according to claim 1 wherein the transmission is a Mercedes automobile transmission.

3. The tool set according to claim 1 wherein said oil bushing is arranged for mounting on, and securing to, the housing to support the components of said combination.

4. The tool set according to claim 3 wherein the flange has holes to accept fasteners to secure the bushing to the housing, one of said holes to accept said elongated guide spear.

5. The tool set according to claim 1 wherein said spacer bushing is an extension on said main spear.

1 6. A tooling set to enhance the assembly of automatic transmissions for automobiles, the tool set
2 to secure a combination of a rear clutch assembly , an oil bushing arranged to bearingly support the rear
3 clutch assembly, a thrust washer captured on the oil bushing, and rear planetary gear assembly to be then
4 installed in a housing, the tool set comprising:

- 5 a) an automotive automatic transmission to be repaired;
- 6 b) an elongated guide spear with threads to engage mating threads on the oil bushing and pass
7 through bolt holes in the housing;
- 8 c) a main spear to engage threads on the planetary rear assembly and to extend along the
9 common center line of the planetary gear assembly;
- 10 d) a spacer bushing to extend from the main spear to engage the oil bushing;

11 whereby the rear clutch assembly can be installed on the oil bushing resulting in an
12 assembly which can be assembled outside the housing with seals and thrust washer visible, then
13 installed in the housing, the tooling set then removable for further processing of the overall
14 transmission assembly.

1 7. A tooling set to enhance the assembly of automatic transmissions for automobiles, the tool set
2 to secure a combination comprising the rear planetary gear assembly, an oil bushing, thrust washer, and
3 rear clutch assembly to be then installed in a housing, the tool set comprising:

- 4 a) the oil bushing, provided with surfaces to mount on the housing and cooperate with fasteners
5 to secure it to the housing;
- 6 b) an elongated guide spear with one end threaded to engage threads on the oil bushing, and pass
7 through bolt holes in the housing;
- 8 c) a main spear to engage threads on the planetary gear assembly and to extend along the
9 common center line of the planetary gear assembly;
- 10 d) a spacer bushing to extend from the main spear to engage the oil bushing;

11 whereby the rear clutch assembly can be installed on the oil bushing resulting in an
12 assembly which can be assembled outside the housing with seals and thrust washer visible, then
13 installed in the housing, the oil bushing securable to the housing, and the tooling set then
14 removable for further processing of the overall transmission assembly.

8. The tool set according to claim 1 wherein said spacer bushing is an extension on said main spear.

9. The tool set according to claim 1 wherein the transmission is a Mercedes automobile transmission.